

April 07, 2017

Dave Blye
Environmental Standards, Inc.
1140 Valley Forge Road
PO Box 810
Valley Forge, PA 19482

RE: Project: Hudson River Remedial Action M
Pace Project No.: 10383369

Dear Dave Blye:

Enclosed are the analytical results for sample(s) received by the laboratory on March 30, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carol Davy
carol.davy@pacelabs.com
1(612)607-6436
Project Manager

Enclosures

cc: Meg Michell, Environmental Standards, Inc.



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: UST-078

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas Certification #: 88-0680

California Certification #: MN00064

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8 Certification #: 8TMS-L

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: MN00064

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DW Certification #: 9952 C

West Virginia WW Certification #: 382

Wisconsin Certification #: 999407970

Wyoming via EPA Region 8 Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10383369001	OWS-WAFO-T170329102849	Water	03/29/17 09:18	03/30/17 10:00

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SAMPLE ANALYTE COUNT

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10383369001	OWS-WAFO-T170329102849	SM 2540D	NAS	1	PASI-M

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PROJECT NARRATIVE

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

Method: SM 2540D

Description: 2540D TSS, Low Level

Client: GE_Anchor QEA, LLC

Date: April 07, 2017

General Information:

1 sample was analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

Sample: OWS-WAFO-
T170329102849 **Lab ID:** 10383369001 Collected: 03/29/17 09:18 Received: 03/30/17 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540D TSS, Low Level									
Analytical Method: SM 2540D									
Total Suspended Solids	39.1	mg/L	1.0	0.50	1		04/05/17 14:17		

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QUALITY CONTROL DATA

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

QC Batch: 467121

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D TSS, Low Level

Associated Lab Samples: 10383369001

METHOD BLANK: 2552095

Matrix: Water

Associated Lab Samples: 10383369001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<1.0	1.0	0.50	04/05/17 14:17	

LABORATORY CONTROL SAMPLE & LCSD: 2552096

2552097

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	100	80.8	81.1	81	81	80-120	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Date: 04/07/2017 09:13 AM

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QUALIFIERS

Project: Hudson River Remedial Action M
Pace Project No.: 10383369

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hudson River Remedial Action M

Pace Project No.: 10383369

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10383369001	OWS-WAFO-T170329102849	SM 2540D	467121		

REPORT OF LABORATORY ANALYSIS

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305 West Grand Avenue, Morrisville, VT 05646 Ph: 201-938-8899

Client: General Electric Company

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

Project: Hudson River Remedial Action Monitoring Program - Resuspension Monitoring

COC ID: COC170329103202PACE
Sample Custodian: CCY
Lab: PACE

10383369


COC Sample Number	Field Sample ID	QA/QC	Matrix **	Date Collected	Time Collected	Media *	# Containers	TEST REQUESTED	METHOD	MS	MSD	LD	Turn Around Time (hrs)	Preservative
001	OWS-WAFO-T170329102849	ENV	W	03/29/2017	09:18	W	4							
Total Suspended Solids									SM 2540D	N	N	Y	504	4degC
CS PCBs									NE294_02	N	N	N	504	4degC


001

Comments: TSS only sent 3/29/17

Relinquished by:		Received by:		Relinquished by:		Received by:	
Signature	Print Name	Signature	Print Name	Signature	Print Name	Signature	Print Name
	M. Baker		M. Baker		M. Baker		M. Baker
	PACE		PACE		PACE		PACE
Date/Time 3/29/17 11:00		Date/Time 3/29/17 13:50		Date/Time 3/29/17 14:30		Date/Time 3/29/17 16:00	

Date Printed: 3/29/2017 * S = SEDIMENT, W = WATER, PW = PORE WATER ** W = Total/Whole, D = Dissolved, R = Residue, S = Sediment Page 1 of 1

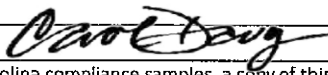
	Document Name: Sample Condition Upon Receipt Form	Document Revised: 19Dec2016 Page 1 of 2
	Document No.: F-MN-L-213-rev.20	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt Courier: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Speedee <input type="checkbox"/> Other: _____ Tracking Number: <u>7145 4771 7645 CS6 3/30/17</u> <u>7675</u>	Client Name: <u>Anchor QEA</u>	Project #: WO#: 10383369  10383369
	Custody Seal on Cooler/Box Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Packing Material: <input checked="" type="checkbox"/> Bubble Wrap <input type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other: _____ Temp Blank? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Thermometer Used: <input checked="" type="checkbox"/> 151401163 <input type="checkbox"/> 151401164 Type of Ice: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None <input type="checkbox"/> Samples on ice, cooling process has begun Cooler Temp Read (°C): <u>0.0</u> Cooler Temp Corrected (°C): <u>0.2</u> Biological Tissue Frozen? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Temp should be above freezing to 6°C Correction Factor: <u>10.2</u> Date and Initials of Person Examining Contents: <u>CS6 3/30/17</u>	

USDA Regulated Soil (☒ N/A, water sample)
 Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No
 Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No
If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

		COMMENTS:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>		
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH Positive for Res. Chlorine? Y N
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION
 Person Contacted: _____ Date/Time: _____
 Comments/Resolution: _____

Project Manager Review:  Date: 3/30/17
 Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).



Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 10383369

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InOrganic

Gravimetric

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FORM I INORGANIC-1
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OWS-WAFO-
T170329102849

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action
Lab Sample ID: 10383369001 Percent Moisture: _____

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Total Suspended Solids	39.1		mg/L	1	04/05/2017 14:17

FORM III INORGANIC-1
BLANKS

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract : Hudson River Remedial Action M

Method Blank Matrix: Water Instrument ID: 10WET4

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	2552095	C
Total Suspended Solids									<1.0	U

FORM VI INORGANIC-1
DUPLICATES

SAMPLE NO.

2552097LCSD

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action

Matrix: Water Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Total Suspended Solids	10	80.8	81.1	0

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

SAMPLE NO.

2552096LCS

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Total Suspended Solids	mg/L	100	80.8	81	80	120

FORM VII INORGANIC-2
LABORATORY CONTROL SAMPLE

SAMPLE NO.

2552097LCSD

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Total Suspended Solids	mg/L	100	81.1	81	80	120

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action M

Preparation Method: SM 2540D Instrument ID: 10WET4

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Total Suspended Solids	2.0	1.0	04/01/2015

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action M

Preparation Method: SM 2540D Batch: WET 52837

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
2552095	2552095	04/05/2017	1000	500
2552096	2552096	04/05/2017	1000	500
2552097	2552097	04/05/2017	1000	500
10383369001	OWS-WAFO-	04/05/2017	1000	500

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Minnesota SDG No. : 10383369 Contract: Hudson River Remedial Action M

Instrument ID: 10WET4

Analysis Method: SM 2540D

Start Date: 04/05/2017 14:17

End Date: 04/05/2017 14:17

Sample Name	Lab Sample ID	D/F	Date	Time	tss w
2552095BLANK	2552095	1	04/05/2017	14:17	X
2552096LCS	2552096	1	04/05/2017	14:17	X
2552097LCSD	2552097	1	04/05/2017	14:17	X
OWS-WAFO-	10383369001	1	04/05/2017	14:17	X

Batch Information : WET 52837 TSS LL

Template Version: F-MN-I-326-Rev.03 (24Jan2017)

Analysis Method	SM 2540D	Analyzed By	NAS	Instrument	10WET4	Acceptance Range:	103-105 C
Oven ID	10WET77	Thermometer ID	2113652	Oven Temp Correction Factor	.1	Oven Temp In1 Corr Date/Time Init	105.0 104.0 04/05/2017 14:17 NAS
Oven Temp Out1 Corr Date/Time Init	104.0 103.0 04/05/2017 15:19 NAS	Desic. In 1 ID Date/Time Init	7 04/05/2017 15:19 NAS	Desic. Out 1 Date/Time Init	04/06/2017 10:25 NAS	Oven Temp In2 Corr Date/Time Init	105.0 104.0 04/06/2017 10:27 NAS
Oven Temp Out2 Corr Date/Time Init	105.0 104.0 04/06/2017 11:30 NAS	Desic. In 2 ID Date/Time Init	7 04/06/2017 11:30 NAS	Desic. Out 2 Date/Time Init	04/06/2017 13:27 NAS	Reviewed By	KEO
Reviewed By Date	04/06/2017 15:03	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TSS Final (mg/L)	TSS Posted (mg/L)	Run Date/Time	Initial Volume (mL)	TSS Filters ()	Filter Wt 1 (g)	Filter Use 1	Oven Wt 1 (g)	Oven Use 1	Oven Wt 2 (g)
2540D WLL	BLANK	2552095	Y	cIHGU	-0.10000	-0.20000	04/05/2017 14:17	1000	112707 ()	0.1153	M	0.1153	N	0.1152
2540D WLL	LCS	2552096	Y	cIHGV	80.800	161.60	04/05/2017 14:17	1000	112707 ()	0.1171	M	0.1980	N	0.1979
2540D WLL	LCSD	2552097	Y	cIHGW	81.100	162.20	04/05/2017 14:17	1000	112707 ()	0.1168	M	0.1980	N	0.1979
2540D WLL	PS	10383369001	Y	cIHGX	39.100	78.200	04/05/2017 14:17	1000	112707 ()	0.1177	M	0.1569	N	0.1568

QC Rule	Sample Type	Lab Sample ID	Oven Use 2	Oven %Diff 1&2	Oven Wt Diff 1&2	Sample Notes	TS/TDS-SPK (mL)
2540D WLL	BLANK	2552095	Y	200.00	0.0001		
2540D WLL	LCS	2552096	Y	0.12369	0.0001		113626 (50)
2540D WLL	LCSD	2552097	Y	0.12323	0.0001		113626 (50)
2540D WLL	PS	10383369001	Y	0.25543	0.0001		

Standard Notes:

113626: TS/TSS/TDS Handmade Standard, Used